ABSTRACT OF THE DISCLOSURE

For automatic identification of microorganisms collected on a carrier, a color image of the carrier surface with collected microorganisms is recorded and digitalized. The digitalized image is converted into a grayscale image and optionally converted subsequently into a silhouette image. When microorganisms are present, an image is produced with full-surface labeled objects of a first grayscale and a background of a second grayscale. Objects are identified in the grayscale and/or silhouette image by a model-based comparative method. Contours of the objects are marked in the color or grayscale image. Features of the objects in the color image and/or grayscale image are determined. The objects are classified based on the features. The classified objects are indicated and/or saved as species, name and/or code. Non-classified objects are indicated and/or saved as color, grayscale and/or silhouette image. Non-classified objects are subsequently discarded or added as a new case to the classification system.